

PROJECT NUMBER: 2105
PROJECT TITLE: Filter Development
PROJECT LEADER: W. A. Nichols
PERIOD COVERED: February, 1988

I. FILTER MATERIALS, LTD.

- A. Objective: Develop polypropylene tow that is equivalent to cellulose acetate.
- B. Results: Two mapping studies were completed on FML models at 3mg and 6mg. The data shows a significant difference in liking of the 6mg model compared to other Ultra Low Delivery cigarettes with the exception of Merit Ultra Lights

Further analysis of smoke chemistry on various FML filter models has shown that the reduction of wax and addition of triacetin and lubricant slightly reduces the differences in filtration of FML filters compared to CA filters.

- C. Plans: Various filter additives will be tested for effects on smoke chemistry. Data from subjective testing will be reviewed to establish further test plans.

II. NEW FILTER CONCEPTS

- A. Objective: Develop unique products using novel filters.
- B. Results:

Modified Plastic Filter: E.E.M.A. region personnel requested a modified filter design having a minimum dilution to the smoking machine of 30%. This will be achieved by adding a third row of perforation between the flute blockage and the cigarette rod.

PVA Matrix: A PVA Matrix has been applied to non-porous plugwrap which complicates addition of dilution. Evaluations were conducted with a range of porous plugwraps. Bleed through of the PVA was not observed with plugwraps having a porosity below 7000 Coresta. Typically, the application did reduce porosity by one half.

- C. Plans: Previous Modified Plastic Filter processing has been done with continuous adhesive application. Patterned application is now being evaluated. The PVA Matrix aging study will be completed in May.

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